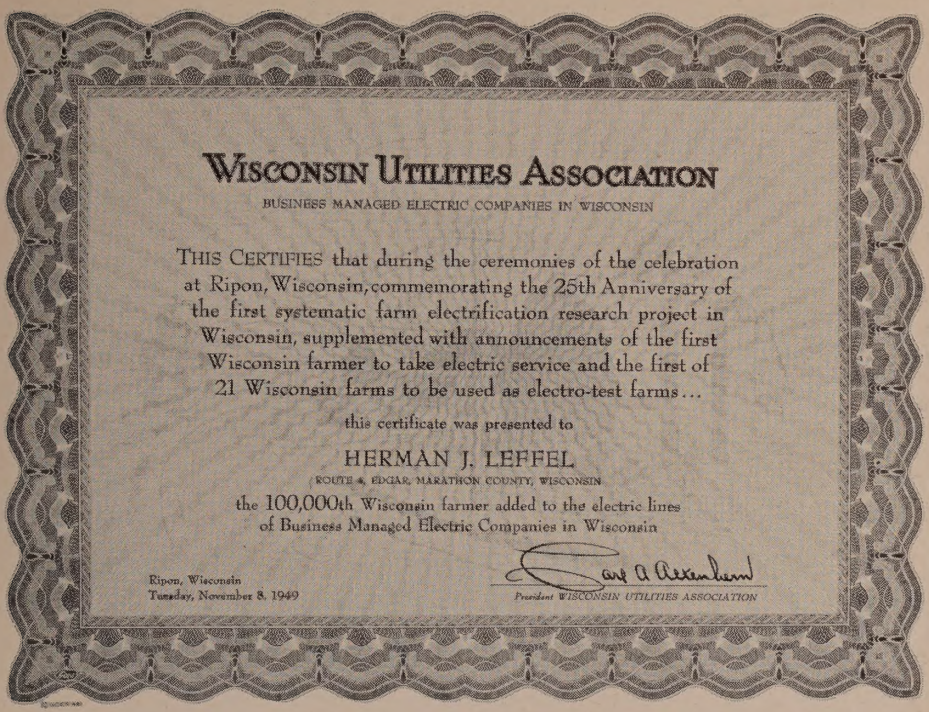
HOW ELECTRICITY CAME TO THE

100,000 WISCONSIN FARMS

Served by the

BUSINESS-MANAGED ELECTRIC COMPANIES OF WISCONSIN

Members of the Leffel family watching the connection of their farm — the 100,000th served by business-managed electric companies.



WISCONSIN UTILITIES ASSOCIATION

BUSINESS MANAGED ELECTRIC COMPANIES IN WISCONSIN

THIS CERTIFIES that during the ceremonies of the celebration at Ripon, Wisconsin, commemorating the 25th Anniversary of the first systematic farm electrification research project in Wisconsin, supplemented with announcements of the first Wisconsin farmer to take electric service and the first of 21 Wisconsin farms to be used as electro-test farms...

this certificate was presented to

HERMAN J. LEFFEL

ROUTE 4, EDGAR, MARATHON COUNTY, WISCONSIN

the 100,000th Wisconsin farmer added to the electric lines of Business Managed Electric Companies in Wisconsin

Ripon, Wisconsin
Tuesday, November 8, 1949

Earl A Reardon

President WISCONSIN UTILITIES ASSOCIATION

Certificate awarded to Herman J. Leffel commemorating the connection of the 100,000th farm.

HOW THE BUSINESS-MANAGED ELECTRIC COMPANIES OF WISCONSIN BROUGHT ELECTRICITY TO 100,000 FARMS

With the connection of the Herman J. Leffel farm, Route 4, Edgar, Marathon County, Wisconsin, the business-managed electric companies of Wisconsin began serving their 100,000th farm.

On Tuesday, November 8, 1949, with appropriate ceremonies, these electric companies commemorated an important milestone in their program to bring electricity to every farm within their service area.

This program had its real beginning 25 years ago with the erection of an experimental rural line near Ripon — the second such line to be built in the entire United States.

The 100,000th farm commemoration ceremonies were held at Ripon — as the cradle of rural electrification in Wisconsin.

The events leading up to the connection of the 100,000th farm to the lines of the state's business-managed electric companies covered

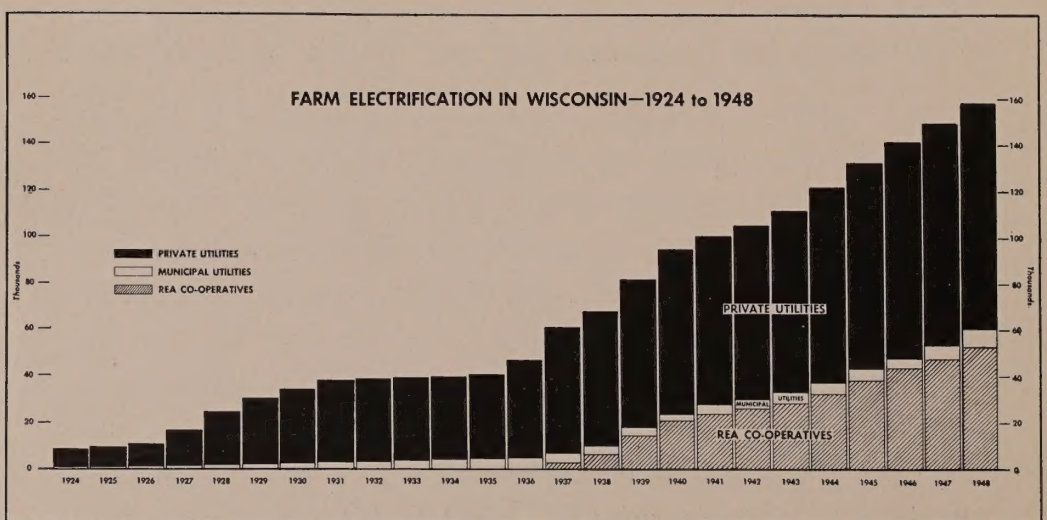
a quarter of a century, including the country's worst depression and the world's most disastrous war. In spite of these and other obstacles, the electric companies have steadfastly pursued their program until today the final goal is in sight—electricity for every farm that wants it.

First Step in Farm Electrification

The chart below pictures the progress made year by year in bringing electricity to Wisconsin farms. It shows the number of farms receiving electric service from 1924 through 1948. It also shows the number of farms served by REA from 1937 through 1948.

Note that on December 31, 1925, about 9,300 Wisconsin farms were receiving electric service, and, by December 31, 1929, this number had been increased to over 30,000. This is an increase of approximately 21,000 farms served in a period of 4 years, or an average increase of more than 5,000 farms per year.

During the 20 years prior to December 31, 1925, the utility companies of Wisconsin were busily engaged in extending service to the small communities of the state. For example, in the year 1913, in the territory now served by the Wisconsin Power and Light Company, there were 211 communities that did not have any electric service whatever. There were 48 communities that had dusk-to-midnight or all-night service and no service in the daytime, and there were only 46 communities that had 24-hour service. To take 24-hour service to these towns that had part-time service and to the communities that



had no service whatever, required the spending of many millions of dollars in generating stations, transmission lines, and substations. The territory of Wisconsin Power and Light Company was not covered with a network of transmission lines until about the middle 20's. An important first step in farm electrification was to make electric power available 24 hours per day in each urban community, so that all farm lines that radiated from such communities could be adequately energized.

Farm Electrification 1925-1929

Furthermore, the cost of manufacturing electricity prior to 1920 was much higher than it is today, even though coal then cost less than one-half of what it costs now, and labor was certainly less than one-half what it is today. It took about 6 pounds of coal to produce a kilowatt-hour with the old reciprocating engines, and even the early turbines required much more coal than the turbines do today. Now we produce a kilowatt-hour with less than one pound of coal. In other words, the efficiency of generating and transmitting power had to be increased to a point where the cost of electricity delivered to the farmer was low enough so that he could afford to buy it. This condition did not come about generally until the middle 20's.

In 1925, with electricity available in almost every city and village in the state, and with the price per unit of electricity sufficiently low, the utilities undertook to bring electricity to the farms of this state on a large scale. Rural departments were created in each of the utilities. Many agricultural engineers were employed by the utilities. Farm test lines were built, the one at Ripon being the most prominent. Tests were run on this by the University of Wisconsin. Many demonstration farms were developed throughout the state, and an intensive rural electrification program was started at about the end of 1925. This resulted in the big increase in number of farms served from the end of 1925 to the end of 1929. This increase in number is accounted for almost entirely by the activity of the utility companies of Wisconsin.

Unfortunately, late in 1929 the big depression hit, and all expansion and development was brought to a dead stop. The farmers were hit very hard; they did not have money with which to wire their

places or buy appliances. The utilities did not have the money to build the lines. So, from the beginning of 1930, for about 6 years, there was very little expansion in the extension of service to farms in the State of Wisconsin.

Post-Depression Activity

By the end of 1935, business had begun to pick up. At any rate, money to finance new construction was a little easier to obtain, so the electric utility companies of the state picked up their rural expansion program where they had dropped it in 1930 because of the depression. Their activities, and later the activities of REA, gave great impetus to the extension of service to farms.

In 1936, REA was created, and since 1937 has been actively engaged in extending service to farms in Wisconsin.

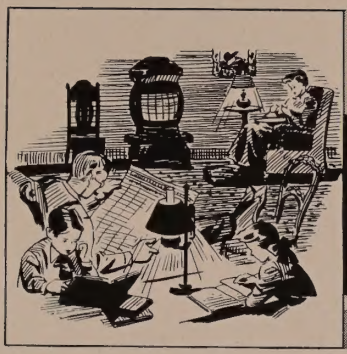
Since January 1, 1937, both the electric operating companies and REA cooperatives have been building lines and extending service to Wisconsin farms, with the results as shown on the chart. At the end of 1948, the total number of farms receiving service in Wisconsin was 158,500. Of this number, 97,600 were served by business-managed Wisconsin electric companies; 52,900 were served by REA co-operatives, and 8,000 by municipalities.

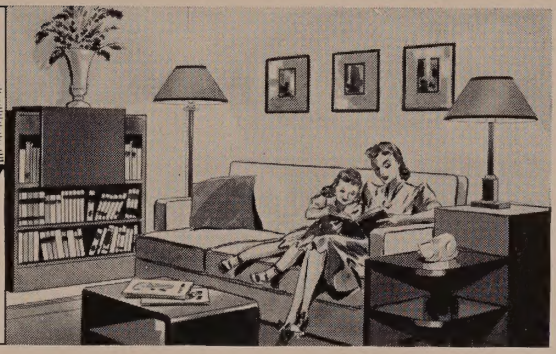
Business-Managed Companies Serve Two-thirds of State's Farms

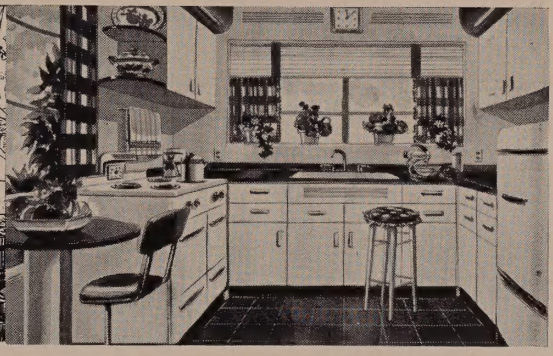
It is also of interest to note that during the life of REA, the number of farms connected by Wisconsin utility companies and REA is only at a slightly higher rate per year than was the case in the period from 1926 to 1929, inclusive. The chart shows that, while REA has been an important factor in the extension of electric service to the farms of the state, the pioneering work and the major portion of the actual extensions have been done by Wisconsin business-managed electric companies. REA today serves 1 out of 3 farms in the state, and the utility companies nearly 2 out of 3.

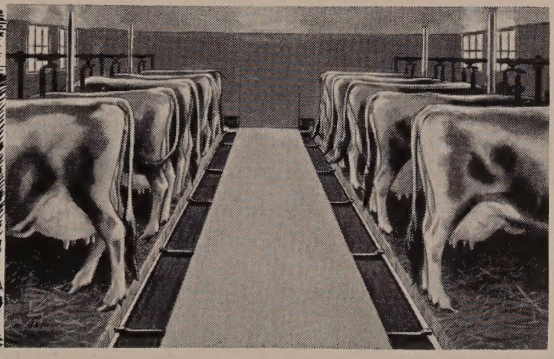
Another thing of interest is that more than 95% of Wisconsin farms either are now using electric service or have it available from a line that passes by the farm. Wisconsin stands high among the states of the nation in farm electrification.

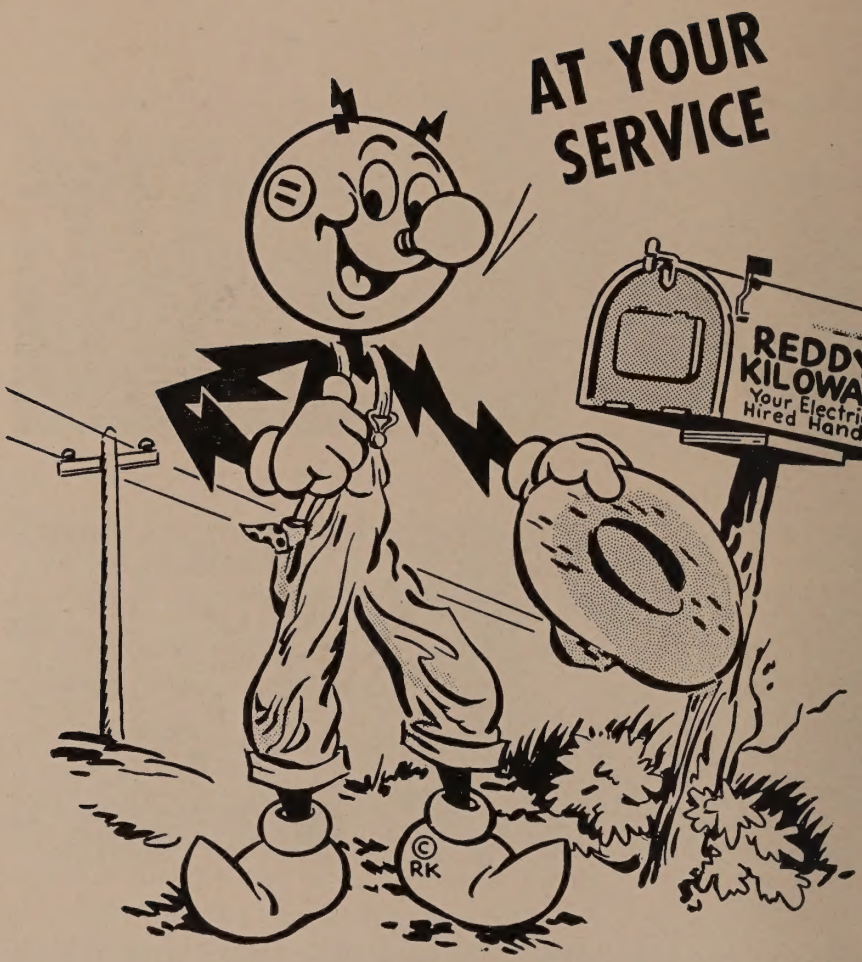
These changes have been brought about on more than 100,000 farms by the business-managed electric companies of Wisconsin.











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